

DOCUMENT RESUME

ED 173 795

CS 204 934

AUTHOR Faigley, Lester
 TITLE Maturity, Complexity, and Growth in College Writing.
 PUB DATE Apr 79
 NOTE 18p.; Paper presented at the Annual Meeting of the Conference on College Composition and Communication (30th, Minneapolis, Minnesota, April 5-7, 1979)

EDRS PRICE MF01/PC01 Plus Postage.
 DESCRIPTORS *Applied Linguistics; *Cognitive Processes; Communication (Thought Transfer); *Composition (Literary); Discourse Analysis; Expository Writing; Higher Education; Language Usage; Semantics; *Student Development; *Student Improvement; *Syntax

ABSTRACT

Much recent research into college writing has focused on syntactic measurements. Significant problems inherent in such use of these indices arise for their validity at and beyond the college level and center on the terms "maturity," "complexity," and "growth." "Maturity" has not been satisfactorily defined, nor has the level of competence been specified at which college students can reasonably be expected to perform. Psycholinguists are replacing "complexity" in the understanding of the process of discourse comprehension by an interest in the meaning, function, and content of texts, and research in discourse production is following suit. Regarding "growth," although writers do use increasing numbers of transformations as they become more proficient in composition, many more semantic propositions underlie the sentences as well; skilled adults also depend on several transformations seldom found in children's prose. It is probable that the preoccupation with syntactic growth has led to a general misunderstanding of syntactic approaches to composition. (DF)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

Read at the Conference on College
Composition and Communication in
Minneapolis, April 4-7, 1979

Maturity, Complexity, and Growth in College Writing

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

Lester Faigley

Lester Faigley

University of Texas at Austin

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

I'm going to talk about T-units today, and one subject I'm not going to cover is the therapeutic value of T-unit counting. When I first moved to North Dakota from the University of Washington, I quickly noticed that the natives ate a lot and drank a lot, and after the first winter I well understood the reasons. One of the vestiges from my days in the Pacific Northwest was the habit of recycling everything returnable, and shortly I had accumulated a back porch full of empty beer bottles and ice cream tubs, an ever present graph of my indulgence. I took up cross-country skiing, but that sport offered no consistent outlet for my energies that first year because the wind literally blew the snow away. In late January I discovered the joys of T-unit counting, and my brain cells that remain undamaged and trousers that still encompass my middle owe their continuing life to the T-unit. But that's another story.

What I am going to discuss is the burgeoning industry of syntactic research in college writing, an industry to which I have contributed my sets of statistics for clause and T-units lengths of college and adult writers. Specifically, I want to examine why researchers in college writing have seized upon syntactic measurements, why syntactic measurements have been accepted uncritically, and more important, whether syntactic measurements can tell us anything about the effectiveness of a piece of writing or a college student's progressive mastery of the skills of written discourse.

The broad outline of research in syntactic development is generally

ED173795

CS204934

known, as is the history of sentence combining as a method of accelerating this development. The godfather of developmental syntactic research in writing is, of course, Kellogg Hunt. Hunt's great advantage over earlier researchers came with the emergence of transformational grammar, enabling him to explain how older writers increasingly use various embedding and deletion transformations to pack more information into less space. It was Hunt's work in defining indices of measurement, however--especially his invention of the T-unit--that brought his research wide circulation. Indicative of this popularity is the frequent reproduction of Hunt's summary table of clause to sentence length factors for children in grades four, eight, and twelve, and for a group labelled "skilled adults" (1965, p. 50). The means for each of the three grade levels mark regular stages of development in writing, stages confirmed by several subsequent studies of the prose of schoolchildren (cf. O'Donnell, 1976). Hunt then computed the means for clause, T-unit, and sentence length in eighteen expository essays appearing in Harper's and The Atlantic as "a target for less accomplished persons to aim toward" (1965, p. 55).

At the same time that Hunt and his assistants were busy counting words and T-units in children's themes, John Mellon was writing sentence embedding exercises which would later be the basis for the first sentence-combining experiment, steering the direction of research in syntactic approaches to composition for years to come. Mellon's assumptions that syntactic maturity could be accelerated through sentence-combining practice and that this acceleration would maintain or even increase overall writing effectiveness underlie the now numerous replications of his study in elementary and secondary classrooms. Sentence-combining experiments have lately been extended to writers of college age, led by the large and impressive Miami University

experiment (Daiker et al., 1978; Morenberg et al., 1978; Kerek et al., 1979). The college sentence-combining experiments have followed Mellon's research design, measuring both syntactic maturity and subjectively judged writing quality. Hunt's normative statistics, describing a broad syntactic gap between high school seniors and college students, in part inspired these experiments, as well as the desire for measures which would allow comparison of writing samples taken at different times and places under different conditions. Daiker, Kerek, and Morenberg, Stewart (1978), and Mulder, Braun, and Holliday (1978) all report significant gains in the syntactic maturity of college students, shortening this so-called gap. Furthermore, several sentence-combining studies, beginning with O'Hare (1973), also report gains in writing quality, and researchers have assumed, though have been unable to prove, that these increases are directly related.

I decided to test this assumption as part of an experiment on the effect of generative rhetoric in freshman English that I conducted last year (Faigley, 1979b, 1979c). All quantitative factors, including Hunt's developmental measures and other factors such as total length, were considered as predictors of overall quality in a multiple regression analysis, a statistical procedure for estimating a dependent variable, in this case the holistic rating, from a series of independent variables. This analysis revealed that Hunt's three indices of maturity, words per T-unit, words per clause, and clauses per T-unit, together predicted less than two percent of the variance in holistic scores.¹ Both T-unit length and clause length, the index Hunt found as most sensitive of maturity in older writers, proved to be insignificant in predicting how readers would assess overall quality. This finding is similar to the conclusions of Nold and Freedman's (1977) experiment on the basis of readers' responses to essays.

I then began to question the value of T-unit and clause length as normative measurements for older writers and especially as indicators of progress in pedagogical experiments. A number of problems are inherent in the use of these indices for college writing--some relatively minor, such as differing procedures for counting words; some more significant, such as the difficulties presented by nonstandard prose; and some which question the validity of these measurements at the college level and beyond. The problems in the latter group center on the terms "maturity," "complexity," and "growth."

To begin with, the idea of "maturity" in writing takes on a very different meaning after a writer leaves high school. No one has satisfactorily defined what adult competence in writing consists of or what level of competence college students can reasonably be expected to achieve. Hunt makes clear in his monograph that his figures for skilled adults are suggestive of possible further development after the grades, not normative figures for close comparison. Nevertheless, Hunt's figures for skilled adults, 20.3 words per T unit and 11.5 words per clause, frequently are quoted as skilled adult norms. Though these figures may be roughly accurate for the type of expository essays that appear in Harper's, The Atlantic, and in many of the anthologies we use, such essays hardly represent the world of written discourse or even the nonfiction prose of skilled writers, something we should know by now from the extensive classificatory efforts of scholars such as Kinneavy (1971).

The use of Kinneavy's scheme for aims of discourse still would not supply satisfactory normative figures since wide differences exist within narrowly defined categories caused by the influences of audience, voice, subject, and other traditional rhetorical considerations, so much so that a small but noticeable percentage of anthologized essays contain T-unit and clause lengths comparable to the means of in-class essays of high school seniors (Faigley, 1979a).

A more telling example of variation occurs in prose samples which I lump together as "Instructional Discourse." Within this subcategory of Reference Discourse are items such as cookbooks, repair manuals, other "how-to-do-it" books, contest blanks, workbooks, instructions on packages, registration forms, and guides to reference books. From this group I took several thousand word selections, among them one from the recipes in the New York Times Cookbook (1961) and another from the "Guide to the Dictionary" in The American Heritage Dictionary (1969). The recipes in The New York Times Cookbook contain T-unit and clause lengths below seven words, less than Hunt's figures for fourth graders, yet I cannot see how this prose can be called something other than skilled adult writing, even if it does lie at one extreme.²

Recipes in other cookbooks I examined yielded mean figures similar to The New York Times Cookbook, demonstrating the authors' awareness of purpose. As a novice cook I must refer to the cookbook for each step of a recipe, memorize that step, return to the stove or counter, and perform the appropriate task, a process the cookbook author facilitates by phrasing each statement in the most straightforward way possible. The dictionary guide also gives an explicit set of instructions, but it has a mean T-unit length of 17.8 words and a clause length of 11.4 words, the last figure right at Hunt's mean for skilled adults. The author of the guide does not expect that the reader will need to recall the verbatim content in order to use the dictionary, storing the information instead in long-term memory.

At the other extreme from recipes is grammatical prose that is virtually unreadable for syntactic reasons alone. Excessive length is one of the symptoms of the bureaucratic style, a style with which we are too familiar. To avoid taking a cheap shot at one of our favorite targets, I computed Hunt's indices for one of Richard Altick's clever parodies of the bureaucratic style

(1969, pp. 80-81), arriving at figures of 27.7 words per T-unit and 14.9 words per clause. Readable prose with somewhat higher figures can be written, but as Kinneavy (1979) has warned, we should sense when syntactic maturity becomes syntactic senility.

Across discourse modes and aims, of course, these differences become more pronounced. There is good evidence that writers of all ages sense to some degree the considerations of subject, audience, and purpose in the composition process as shown by adjustments in their syntax. At the beginning of this semester, I took writing samples from a class of college students, asking them to write in three different discourse modes and aims on successive days. The means for the persuasive sample were nearly five words per T-unit and one and a half words per clause higher than the means for the expressive sample.³ Several researchers have noted variation caused by mode and aim of discourse at other age levels (Seegars, 1933; Johnson, 1967; Veal and Tillman, 1971; San Jose, 1972; Perron, 1976a, 1976b, 1976c; Crowhurst, 1977; Witte and Davis, 1979).

Early on, Mellon chose the term "syntactic fluency" instead of "syntactic maturity," defining fluency as "the range of sentence types observed in representative samples of a student's writing" (1969, p. 16). Mellon supported this definition with an extensive group of statistics on sentence and clause types; however, fluency is sometimes used in discussing Hunt's indices of maturity which tell us little about sentence variety in older writers. Bureaucratic prose, high in T-unit and clause length, typically relies on the same constructions, the passive voice and prepositional phrases piled one on top of another. We get some notion of the variety in the prose of skilled adults by simply looking at the standard deviation of T-unit and sentence length in comparison to similar figures from college student prose.

I discovered that the standard deviation of sentence length for a skilled adult sample is over fifty percent higher than that of college students, over a five word difference, while comparison of mean length alone showed just a three word difference.⁴ "Fluency" demands indices other than those of Hunt if we are to use the term meaningfully, indices which truly measure sentence variety.

Another term which has been used as a synonym for "syntactic maturity" is "syntactic complexity." This term has been the focus of much recent research in psycholinguistics from the quite different perspective of discourse comprehension rather than discourse production. The impetus for this research also came from Chomsky's theories of transformational grammar, which did not claim to discuss psychological processes in language production, but which did imply their existence. Psycholinguists subsequently began to test whether or not the transformations in Chomsky's theories directly mirrored psychological reality. This hypothesis came to be known as the derivational theory of complexity, and early experiments suggested its validity. One typical experiment (Miller and McKean, 1964) found that subjects required about as much time to comprehend a negative-passive transformed sentence as they did to comprehend separately a negative sentence plus a passive sentence.

But in recent years the derivational theory of complexity has been soundly rejected. Fodor, Bever, and Garrett (1974) demonstrated that some transformations produce sentences easier to comprehend than less transformationally complex counterparts. Deletion transformations frequently bring this result. Jack jumps higher than Jill is easier to understand than Jack jumps higher than Jill jumps, even though it requires an additional transformation. The adjective derivation of standard transformational theory supplies another good example, where The small boy threw the red ball is more complex than The

boy who is small threw the ball which is red, but certainly the former is easier to comprehend.

I don't have time to delve more deeply into this expanding and complex area of research. My purpose is only to point out that psycholinguists have replaced their interest in syntactic theory as a way of understanding the process of discourse comprehension by an interest in the meaning of texts, the function of texts, and the context of texts. We now see research in written discourse production beginning to follow suit (cf. Hirsch 1977, 1979; de Beaugrande, 1979).

The final term I wish to discuss is "growth," a term which is misleading in several respects. Early sentence-combining studies claimed growth in syntactic maturity according to Hunt's summary table; O'Hare, for instance, claims five years of growth in maturity for his seventh-grade treatment group (1973, p. 56). The extension of this metaphor to college students brings the vision of a mad scientist creating an army of twelve-foot giants to take over the world of discourse. Hunt's table, as you recall, shows wide differences between twelfth graders and skilled adults in T-unit and clause length, wider even than the differences between twelfth graders and fourth graders. The table, though, says very little about the nature of these differences, particularly for older writers. Writers do use increasing numbers of transformations as they become more proficient in composition, but this truism overlooks two very important considerations.

The first is that skilled adults begin the writing stage of the composing process with more so-called kernels to transform into longer sentences, that many more semantic propositions underlie the sentences of skilled adults as well as more transformations, that skilled adults simply see more--more detail, more connections, more aspects from more perspectives. To neglect this is to

neglect the role of invention.

Second, skilled adults depend on several transformations which are rarely found in the prose of schoolchildren. A few of these transformations greatly influence Hunt's indices, especially ones which produce nonrestrictive reduced clauses such as participial phrases and appositives, constructions which fatten clause length according to Hunt's definition because they do not contain finite subjects and verbs. I found that nearly all the difference in clause and T-unit length for a set of essays written by college freshmen and anthologized essays of skilled adults is caused by increased use of nonrestrictive modifiers (Faigley, 1979a). In anthologized nonfiction prose of skilled adults, a good ball-park estimate through all aims of discourse is about thirty percent of total words in free modifiers, while college freshmen use about half this total (Christensen, 1968; Wolk, 1970; Faigley, 1979a). Excluding nonrestrictive modifiers, the mean T-unit lengths of the two groups are virtually identical, 12.2 for the freshmen and 12.4 for the anthologized writers.

Since freshmen and skilled adults place about the same percentage of total words in nonrestrictive modifiers before the main clause, the "growth" must come through the addition of nonrestrictive modifiers within and after the main clause. Such growth is what Christensen advocated, and what has been taught in college experiments testing syntactic-based instruction. The syntactic gains of the treatment group in the Faigley experiment in generative rhetoric resulted exclusively from an increased number of words in final nonrestrictive modifiers (1979b). I assume that additional nonrestrictive modifiers also produced the treatment gains in the Stewart and Daiker, Kerek, and Morenberg experiments. Stewart relied upon Christensen materials directly, while the Miami University study used Strong's Sentence Combining: A Composing

Book (1973), a text heavily influenced by Christensen's ideas.

Mellon (1979) has recently argued that growth in clause and T-unit length caused by nonrestrictive modifiers is not the same thing as growth produced by elaboration within dominant noun phrases. His point is that the operations required to write nonrestrictive modifiers can be very quickly taught to older students. Such structures, though semantically subordinate, represent little more than surface structure ellipsis. While these structures are essential to an understanding of the overall stylistic effect of modern prose, in developmental terms they cannot be compared to the slow rise in restrictive modification occurring through the grades accompanying the writer's expanding conceptual knowledge. For example, absolutes rarely appear in the prose of college freshmen, yet it is no difficult task to show a student that The boy looked nervous before the exam. His feet were tapping nervously under the desk can be joined by deleting the were in the second sentence and changing the comma to a period to form The boy looked nervous before the exam, his feet tapping nervously under the desk. As a consequence the T-unit and clause length of this sentence are doubled.

It comes as no surprise to me, therefore, that Stewart (1978) reports a group of college freshmen gained over four words per T-unit and nearly three words per clause after only six weeks of sentence-combining instruction. I suspect that twelve class hours would be enough to obtain statistically significant increases in clause and T-unit length from an average group of college freshmen, perhaps as few as two hours for a bright group. And the method probably wouldn't matter that much: either sentence combining, which supplies all the content; or generative rhetoric, which supplies part of the content; or imitation, which supplies none of the content, should do the job. Dutiful students can add details in nonrestrictive modifiers to nearly every

statement they write if they sense the teacher is going to reward them for doing so. Johnny, who walks in the first day asking, "What do I have to do to get an A in the course so I can get into med school?" is very eager, if not easy, to please. How long such gains might last, though, is another question yet to be answered.

I don't want to end by giving you the impression that I am dismissing syntactic approaches to college composition, for the limb I have been chopping is the one on which my treehouse is perched, nor do I want to swear off forever the joys of counting syntactic structures. There is still ample territory to be explored in the forest of prose syntax. One recent discovery in the research of Gebhard (1978) and Sadowsky and Witte (1978) is the importance of prepositional phrases in skilled adult writing, an indication of their tendency to reduce clauses to the most economical structures appropriate to context.

But a more crucial issue is whether or not the preoccupation with syntactic growth has led to general misunderstanding of syntactic approaches to composition. The elaborate tables for factors of syntactic maturity contained in the reports of college experiments to date show convincingly that writing habits of college students can be changed, at least temporarily, in a semester or less of instruction, but they do not tell us much about why the overall writing quality of these same students improves as well. We have often failed to recognize that sentence combining is only a technique; the rhetorical assumptions must come from elsewhere. Sentence combining and analogous methods must convey certain traditional rhetorical principles such as emphasis, supporting detail, and stylistic flavor more effectively than the essay analysis methods to which they have been compared.

When writers learn that sentences like John walked into the room. He

watched everyone closely can be combined as John walked into the room, watching everyone closely, they have discovered more than the utility of the present participle transformation. Writers learn that simultaneous events can be linked directly in sentences, but moreover that by shifting the participial phrase to the beginning of the sentence, Watching everyone closely, John walked into the room, writers can emphasize that detail (see Saha, 1978). Once students make these discoveries, they can generalize them to larger units of discourse, rearranging, adding and deleting whole sentences and paragraphs to achieve their purpose. Only the weakest writers learn just the syntactic operations without becoming conscious of their rhetorical significance. The better writers all grasp the semantic relationships inherent in these constructions. And it is to semantics, not syntax, where we will eventually have to travel if we ever wish to comprehend even partially this effect. I tried to explain all this to a veteran composition teacher a few weeks ago and after a half hour of my rambling, he waved his hand and told me: "I understand you're saying two things--by concentrating on syntactic features at the beginning of a writing course, you're teaching students more than you can systematically describe, and that the teaching of these principles is cleaner at the sentence level." This is perhaps as well as we can explain the beneficial aspects of college sentence combining at present, but with so much fine work now coming out in psycholinguistics, semantic theory, discourse analysis, text linguistics, and other allied fields, the possibilities for the future seem very promising indeed.

References

- Altick, R. D. Preface to critical reading (5th ed.). New York: Holt, Rinehart and Winston, 1969.
- Christensen, F. The problem of defining a mature style. English Journal, 1968, 57, 572-79.
- Claiborne, C. The New York Times cookbook. New York: Harper and Row, 1961.
- Crowhurst, M. The effects of audience and mode of discourse on the syntactic complexity of the writing of sixth and tenth graders (Doctoral dissertation, University of Minnesota, 1977).
- Daiker, D., Kerek, A., and Morenberg, M. Sentence-combining and syntactic maturity in freshman English. College Composition and Communication, 1978, 29, 36-41.
- de Beaugrande, R. Psychology and composition. College Composition and Communication, 1979, 30, 50-58.
- Faigley, L. Another look at sentences. Freshman English News, 1979, 7 (3), 18-21. (a)
- Faigley, L. The influence of generative rhetoric on the syntactic maturity and writing effectiveness of college freshmen. Research in the Teaching of English, 1979, 13. (b)
- Faigley, L. Problems of analyzing maturity in college and adult writing. In D. Daiker, A. Kerek, M. Morenberg (Eds.), Sentence combining and the teaching of writing. Akron, Ohio: University of Akron, 1979. (c)

- Fodor, J. A., Bever, T. G., and Garrett, M. F. The psychology of language. New York: McGraw-Hill, 1974.
- Gebhard, A. O. Writing quality and syntax: a transformational analysis of three prose samples. Research in the Teaching of English, 1978, 12, 211-231.
- Hirsch, E. D., Jr. Measuring the communicative effectiveness of prose. In C. Frederickson, M. Whiteman, and J. Dominic (Eds.), Writing: The nature, development and teaching of written composition. Hillsdale, New Jersey: Lawrence Erlbaum Associates, 1979.
- Hirsch, E. D., Jr. The philosophy of composition. Chicago: University of Chicago Press, 1977.
- Hunt, K. W. Grammatical structures written at three grade levels. NCTE Research Report No. 3. Urbana, Illinois, 1965.
- Johnson, L. V. Children's writing in three forms of composition. Elementary English, 1967, 44, 265-269.
- Kerek, A., Daiker, D., and Morenberg, M. The effects of intensive sentence combining on the writing ability of college freshman. In D. McQuade (Ed.), Linguistics, stylistics, and the teaching of writing. Akron, Ohio: University of Akron, 1979.
- Kinneavy, J. L. Sentence combining in a comprehensive language framework. In D. Daiker, A. Kerek, M. Morenberg (Eds.), Sentence combining and the teaching of writing. Akron, Ohio: University of Akron, 1979.
- Kinneavy, J. L. A theory of discourse. Englewood Cliffs, N.J.: Prentice Hall, 1971.
- Mellon, J. C. Issues in the theory and practice of sentence combining: a twenty year prospective. In D. Daiker, A. Kerek and M. Morenberg (Eds.), Sentence combining and the teaching of writing. Akron, Ohio: University of Akron, 1979.

- Mellon, J. C. Transformational sentence-combining: a method for enhancing the development of syntactic fluency in English composition. NCTE Research Report, No. 10. Urbana, Illinois, 1969.
- Miller, G. A. and McKean, K. C. A chronometric study of some relations between sentences. Quarterly Journal of Experimental Psychology. 1964. 16, 297-308.
- Morenberg, M. The elusive nature of the relationship between syntactic maturity and writing quality. (Paper presented at the Conference on College Composition and Communication, Minneapolis, 1979).
- Morenberg, M., Daiker, D., and Kerek, A. Sentence combining at the college level: an experimental study. Research in the Teaching of English, 1978, 12, 245-256.
- Morris, W. (Ed.) American heritage dictionary of the English language. New York: American Heritage Publishing Company, 1969.
- Mulder, J. E. M., Braun, C., and Holliday, G. Effect of sentence-combining practice on linguistic maturity level of adult students. Adult Education, 1978, 28, 111-120.
- Nold, E. W., and Freedman, S. An analysis of reader's responses to essays. Research in the Teaching of English, 1977, 11, 164-174.
- O'Donnell, R. C. A critique of some indices of syntactic maturity. Research in the Teaching of English, 1976, 10, 31-32.
- O'Hare, F. Sentence combining: improving student writing without formal grammar instruction. NCTE Research Report No. 15. Urbana, Illinois, 1973.
- Perron, J. D. The impact of mode on written syntactic complexity: Part I, third grade. Studies in Language Education Report No. 24. Department of Language Education, University of Georgia, 1976. (a)

- Perron, J. D. The impact of mode on written syntactic complexity: part II, fourth grade. Studies in Language Education Report No. 25. Department of Language Education, University of Georgia, 1976. (b)
- Perron, J. D. The impact of mode on written syntactic complexity: part III, fifth grade. Studies in Language Education Report No. 27. Department of Language Education, University of Georgia, 1976. (c)
- Saha, P. K. Style, stylistic transformations, and incorporators. Style, 1978, 12, 1-22.
- San Jose, C. Grammatical structures in four modes of writing at fourth-grade level (Ph.D. dissertation, Syracuse University, 1972).
- Seegars, J. C. The form of discourse and sentence structure. Elementary English, 1933, 10, 51-54.
- Sodowsky, R. E. and Witte, S. P. Positive measurement of the writing of college students. (Paper presented at the Ve Congrès International de Linguistique Appliquée, Montréal, 1978).
- Stewart, M. F. Freshman sentence combining: a Canadian project. Research in the Teaching of English, 1978, 12, 257-268.
- Strong, W. Sentence-combining: a composing book. New York: Random House, 1973.
- Veal, L. R. and Tillman, M. Mode of discourse variation in the evaluation of children's writing. Research in the Teaching of English, 1971, 5, 37-45.
- Witte, S. P., and Davis, A. S. The stability of t-unit length: a preliminary investigation. (Unpublished paper, University of Texas at Austin, 1979.)
- Wolk, Anthony. The relative importance of the final free modifier: a quantitative analysis. Research in the Teaching of English, 1970, 4, 59-68.

Footnotes

¹Two other experiments in college writing have obtained comparable results. John Brereton told me that the preliminary results of the Writing Development Project at the City University of New York (John Brereton, Sondra Perl, Richard Sterling, Directors) show that Hunt's indices predict about one percent of the variance in ratings of quality. Daiker, Kerek, and Morenberg found the same three indices to predict about three percent of the variance in their experiment of the effect of sentence-combining instruction (Morenberg, 1979).

²Total words, 1275; words per T-unit, 6.5; clauses per T-unit, 1.1; words per clause, 5.8.

³Syntactic Variation Across Discourse Aims for College Students (N=20)

DISCOURSE AIM	FACTOR words per T-unit	Clauses per T-unit	Words per clause
Persuasive	19.9	1.87	10.6
Referential	14.7	1.49	9.9
Expressive	15.1	1.68	9.2

⁴Means and Standard Deviation of Sentence Length: College Students and Skilled Adults.

	Words per sentence	standard deviation
College students	18.6	8.5
Skilled adults	21.5	13.1